a capillary chamber, at least one reagent disposed within the capillary chamber, and a dynamic capillary filter disposed in fluid communication with said chamber, comprising the steps of:

(a) conveying the fluid sample into fluid communication with the dynamic capillary filter such that the fluid component is separated from the non-fluid component and the fluid component is drawn into the capillary chamber by capillary action and reacts with the reagent, and

(b) analyzing the reagent to determine whether the reagent changes in response to an analyte in the fluid sample.

41. (Original) The method of claim 40 further comprising the step of analyzing the reagent to determine a proportion of the reagent which binds to the sample.

42. (Original) The method of claim 41 further comprising the step of determining a volume of a fluid sample which substantially fills the capillary chamber from a known volume of the capillary chamber.

43. (Original) The method of claim 40, wherein said dynamic capillary filter comprises a plurality of microspheres disposed in abutting relation and forming interstitial spaces therebetween, whereby when the microspheres are disposed in fluid communication with the biologic sample, the interstitial spaces connect to form a plurality of transiently forming capillary channels and the non-fluid component is separated from the fluid component by capillary flow of the fluid component through the transiently forming capillary channels.

44. (Original) The method of claim 43 wherein the biologic sample is blood and the fluid component is plasma.

45. (Original) The method of claim 40 in which the reagent is disposed in a strip adhered to an interior surface of the capillary chamber.

46. (Original) The method of claim 45 in which the reagent comprises a selected antibody printed onto the interior surface of the capillary chamber.

47. (Original) The method of claim 45 in which a plurality of reagents are disposed within the capillary chamber for conducting a plurality of assays on the fluid sample.

48. (Original) The method of claim 46 in which the reagents include proteins and antibodies.

49. (Original) The method of claim 47 in which the reagents include proteins, antibodies, nucleic acids, lipids, steroids, heterocyclic compounds, drugs of abuse or any combination thereof.

50. (Original) The method of claim 40 in which a plurality of capillary chambers are provided for conducting a plurality of assays on one or more fluid samples.

51. (Currently Amended) The method of claim 40 further comprising the step of calibrating the analyzer utilizing a calibration strip imprinted on the ~~biochip~~ device for setting a baseline.

52. (Original) The method of claim 40 further comprising the step of associating with results of the assay patient identification information contained in an indicator affixed to the biochip.

53. (Original) The method of claim 52 in which the indicator comprises a bar code.

54. (Original) The method of claim 40 further comprising the step of recording results of the assay in a computer database.

55. (Original) The method of claim 54 further comprising the step of compiling data from a plurality of assays in the database.

56. (Original) The method of claim 54 further comprising the step of applying a trained neural network algorithm to the data to generate a profile of one or more selected disorders.

57. (Original) The method of claim 55 further comprising the step of applying a receiver operating characteristic analysis to the data to determine a statistical significance of the data.

58. (Original) The method of claim 56 further comprising the step of applying a receiver operating characteristic analysis to the data to determine a statistical significance of the data.

59. (Original) The method of claim 40 further comprising, before the step of analyzing the reagent to determine whether the reagent binds to an analyte in the fluid sample, the step of removing the fluid sample from the capillary chamber after a desired time interval.

60. (Original) The method of claim 59 in which a wick or a capillary is brought into fluid communication with the fluid sample to remove the fluid sample from the capillary chamber.

Claims 61 to 78 cancelled.

REMARKS

The Examiner objected to claims 40-52 and 59-60 as lacking novelty in view of Nason. It is respectfully submitted that the Examiner's objection should be withdrawn in view of the following remarks.

The claimed invention is directed to a method of conducting an assay for analyzing a biological sample where the device has a capillary chamber, at least one reagent in the capillary chamber and a dynamic filter. The sample is put into fluid communication with the dynamic capillary filter such that a fluid component of the sample is separated from a non-fluid component. The fluid component reacts to reagents in the capillary chamber and is analyzed for reagent changes in order to detect the presence of analyte in the fluid sample.

Nason, on the other hand, discloses a laboratory slide which is concerned with providing monocellular spacing between a lower slide plate and an overlying coverslip. The slide disclosed by Nason has a lower slide plate and upper coverplate or coverslip which is secured to the lower slide plate by means of a bonding agent. The cover slide has four examination chambers. A specimen is drawn in a thin film distribution by capillary action through the examination chamber. In Figure 13, Nason discloses an embodiment that includes beads having a reagent coating which can be used for the purposes of an analyte detection test.

The claimed invention provides the advantage that the assay methodology provides for the separation of liquid and non-liquid components of the sample such as plasma from blood in the assay of a fluid sample. This avoids the disadvantage of having to separate out a cellular

components of a fluid sample such as blood, before assaying the sample. The claimed methodology advantageously allows the assay to be used at the point of patient care, and even by an individual patient oneself.

Nason, on the other hand, does not disclose or suggest a methodology involving the use of a dynamic filter in an assay device that would separate a liquid from non-liquid components of a sample. The beads disclosed by Nason serve the simple purpose of bringing a reagent into contact with an analyte. There is no suggestion that these beads could be used as a dynamic filter. It is therefore submitted that Nason does not teach or suggest the functional advantages of the claimed invention. It is therefore respectfully submitted that claims 40-60 patentably distinguish over Nason.

The Examiner also objected to claims 53-58 as being obvious having regard to Nason in view of Fischer. It is submitted that the Examiner's objection is now moot in that the claimed invention patentably distinguishes over Nason.

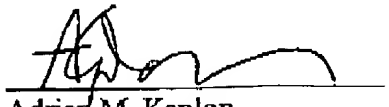
The Examiner objected to the limitation "the biochip" in line 2 of claim 51. Applicant has replaced the word "biochip" with the word "device".

A Petition for an Extension of Time requesting an extension of one month for filing the subject response is enclosed.

Favourable consideration and allowance of this application are respectfully requested.

Executed at Toronto, Ontario, Canada, on September 21, 2004.

PETER LEA



Adrian M. Kaplan
Registration No. 43396
AMK:ck
Encl. Petition for an Extension of Time in duplicate